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Definitions and Purpose:

Many generators subject to "environmental redispatch" object to the characterizations set forth in these sections. See generally, industry comments filed in response to the Administrators Draft Record of Decision (ROD) on Environmental Redispatch and Negative Pricing Policy. These sections are not relevant to the issue of actions BPA will take prior to and during an Environmental Redispatch (ER) event, including how the redispatch requirements are communicated to generators. These sections can be deleted without impacting the business practice.

Establishing Environmental Redispatch Minimum Generation Levels for Thermal Generators

Section 1. The business practice concludes, without analysis, that there are no minimum generation levels for variable energy generators. All generators subject to "environmental redispatch" should have the opportunity to apply for a minimum generation level.

Section 2. Thermal Generators

Testing requirements after planned generator maintenance outages should not be considered as a factor in establishing minimum generation levels. The timing of testing is a cost issue – that cost should not be shifted from the thermal generator to variable energy generators.

Bonneville should also obtain information related to restart times. Depending upon the expected duration of the "environmental redispatch" event, it may be more optimal to shut a thermal project down completely for the duration of the event instead of operating it at its minimum generation level for an extended time.

Ramp Rates/Dynamic Transfer Limits

The business practice does not address ramp rates for variable energy generators seeking to comply with dispatch orders under "environmental redispatch." Bonneville should establish a mechanism for variable energy generators to establish a maximum ramp rate for their projects to comply with "environmental redispatch" orders.

Bonneville should also establish a bandwidth around the set point for "environmental redispatch" similar to the band width associated with DSO 216 events. Wind generators may have difficulty maintaining a specified level of output if wind conditions are changing. For this reason, Bonneville has allowed wind generators who maintain output within a narrow band to be excused from "strikes" under DSO 216. Bonneville should make the same accommodation for "environmental redispatch" events.

It is not clear that Bonneville intends to implement "environmental redispatch" only during hourly ramps. To the extent that Bonneville intends to implement environmental redispatch mid-hour, see below.

The business practice does not appear consistent with the business practices "Dynamic Transfer Capability: Requesting & Awarding Access – Pilot" and "Dynamic Transfer Operating & Scheduling Requirements"

As Bonneville stated in its presentation on the Proposed Dynamic Transfer Capability Pilot Evaluation Criteria dated March 2, 2010; dynamic transfers impact system operations and reliability. Elements under study in the pilot include:

- What voltage requirements/limits are desirable to assure offering DTC does not impact system operations adversely?
- What reactive requirements/limits are desirable to assure offering DTC does not impact system operations adversely?
- How do rates of change impact voltage and reactive support?
- What are the criteria under which a dynamic transfer is considered "not dynamic enough" to need DTC?
- How did the DTC Pilot affect the voltage and what have the dispatchers done differently in controlling voltage?
- Did the Dispatchers increase the number of switching operations on reactive devices?
- Did the Dispatchers have to mitigate any reactive reserve deficiencies created by the DTC Pilot?
- Did the DTC Pilot increase the RAS Dispatcher workload in arming and disarming RAS Schemes?

Clearly, Bonneville is concerned that dynamic transfer of variable generation can cause system reliability issues – the pilot is intended to identify those. The "environmental redispatch" business practice, however, appears to assume that there is no reliability impact associated with rapid ramping of variable energy generators. In the absence of any studies or other analysis, it seems likely that rapid ramping of variable generation at the same time as rapid ramping of distant Federal hydro resources would create a higher risk of system reliability issues compared to rapid ramping of variable generation alone. Accordingly, this business practice raises several concerns. First, that implementation of environmental redispatch will interfere with the study effort of the DTC pilot. Second and most important, that implementation of environmental redispatch, in the absence of any analysis related to the ramp rate that the system can handle, may actually cause a system reliability event.

To the extent that Bonneville can implement "environmental redispatch", it would appear that dynamic transfer capability does exist on its system. Bonneville should allocate the dynamic transfer capability actually used to implement environmental redispatch to the variable generator resources impacted as historic uses under the dynamic transfer business practices. If dynamic transfer capability does not exist, then implementation of environmental redispatch creates a risk of a serious reliability event.

Allocation of Environmental Redispatch Quantity – Section 2

Depending upon the anticipated duration of the environmental redispatch event, Bonneville should consider completely displacing thermal generation – not simply limiting it to minimum generation levels. If the anticipated duration of the redispatch event exceeds the minimum cycle time to restart, Bonneville should displace the thermal unit completely.

Bonneville should also supplant any generation using nonfirm transmission service prior to supplanting any variable energy resources using firm transmission service. Only after curtailing generation using non-firm transmission schedules should Bonneville apply "environmental redispatch" pro rata across resources using firm transmission service.

Adjustments to Generation Imbalance Accounting During an Environmental Redispatch Event

It is appropriate for Bonneville to excuse generation imbalance charges during an "environmental redispatch" event.

Likewise, Bonneville should expressly excuse customers from Persistent Deviation charges during an "environmental redispatch" event.

Notification that Environmental Redispatch is Imminent

Bonneville intends to place on its OASIS a notice that "environmental redispatch" is imminent along with an expected duration of the event. Bonneville should also issue a warning at the same time, containing the same information, through iCRS Generation Advisor. The business practice appears to indicate that Bonneville will only use iCRS to indicate that "environmental redispatch" is in effect – but without using it to issue warnings to the generation fleet.